

the aircraft. The nacelle angle is controlled by a self-centering switch. When the nacelle angle is 0 degrees (airplane mode) and the pilot moves the nacelle switch upwards, the nacelles are programmed to automatically turn to the first default position (for example, 60 degrees) where they will stop. A second upward move of the switch will tilt the nacelle to the second default position (for example, 75 degrees). Above the last default position, the nacelle angle can be set to any angle up to approximately 95 degrees by moving the switch in the up or down direction. The number and position of the fixed operation points may vary on different tiltrotor configurations.

Nacelle angle is defined as the angle between the rotor shaft centerline and the longitudinal axis of the aircraft fuselage.

Tiltrotor means a class of aircraft capable of vertical take-off and landing, within the powered-lift category, with rotors mounted at or near the wing tips that vary in pitch from near vertical to near horizontal configuration relative to the wing and fuselage.

Vertical takeoff and landing (VTOL) mode means the aircraft state or configuration having the rotors orientated with the axis of rotation in a vertical manner (*i.e.*, nacelle angle of approximately 90 degrees) for vertical takeoff and landing operations.

V_{CON} is defined as the maximum authorized speed for any nacelle angle in VTOL/Conversion mode.

VTOL/Conversion mode is all approved nacelle positions where the design operating rotor speed is used for hover operations.

VTOL mode RPM means highest range of RPM that occur for takeoff, approach, hover, and conversion conditions.

[Doc. No. 13243, Amdt. 36–4, 40 FR 1034, Jan. 6, 1975]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 36.1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

§ 36.2 Requirements as of date of application.

(a) Section 21.17 of this chapter notwithstanding, each person who applies for a type certificate for an aircraft covered by this part, must show that the aircraft meets the applicable requirements of this part that are effective on the date of application for that type certificate. When the time interval between the date of application for the type certificate and the issuance of the type certificate exceeds 5 years, the applicant must show that the aircraft meets the applicable requirements of this part that were effective on a date, to be selected by the applicant, not earlier than 5 years before the issue of the type certificate.

(b) Section 21.101(a) of this chapter notwithstanding, each person who applies for an acoustical change to a type design specified in § 21.93(b) of this chapter must show compliance with the applicable requirements of this part that are effective on the date of application for the change in type design. When the time interval between the date of application for the change in type design and the issuance of the amended or supplemental type certificate exceeds 5 years, the applicant must show that the aircraft meets the applicable requirements of this part that were effective on a date, to be selected by the applicant, not earlier than 5 years before the issue of the amended or supplemental type certificate.

(c) If an applicant elects to comply with a standard in this part that was effective after the filing of the application for a type certificate or change to a type design, the election:

- (1) Must be approved by the FAA;
- (2) Must include standards adopted between the date of application and the date of the election;
- (3) May include other standards adopted after the standard elected by the applicant as determined by the FAA.

[Amdt. 36–54, 67 FR 45211, July 8, 2002; Amdt. 36–24, 67 FR 63195, Oct. 10, 2002]

§ 36.3 Compatibility with airworthiness requirements.

It must be shown that the aircraft meets the airworthiness regulations

constituting the type certification basis of the aircraft under all conditions in which compliance with this part is shown, and that all procedures used in complying with this part, and all procedures and information for the flight crew developed under this part, are consistent with the airworthiness regulations constituting the type certification basis of the aircraft.

[Doc. No. 9337, 34 FR 18364, Nov. 18, 1969, as amended by Amdt. 36-14, 53 FR 3540, Feb. 5, 1988]

§ 36.5 Limitation of part.

Pursuant to 49 U.S.C. 1431(b)(4), the noise levels in this part have been determined to be as low as is economically reasonable, technologically practicable, and appropriate to the type of aircraft to which they apply. No determination is made, under this part, that these noise levels are or should be acceptable or unacceptable for operation at, into, or out of, any airport.

§ 36.6 Incorporation by reference.

(a) *General.* This part prescribes certain standards and procedures which are not set forth in full text in the rule. Those standards and procedures are contained in published material which is reasonably available to the class of persons affected and has been approved for incorporation by reference by the Director of the Federal Register under 5 U.S.C. 552 (a) and 1 CFR Part 51.

(b) *Incorporated matter.* (1) Each publication, or part of a publication, which is referenced but not set forth in full text in this part and which is identified in paragraph (c) of this section is hereby incorporated by reference and made a part of part 36 of this chapter with the approval of the Director of the Federal Register.

(2) Incorporated matter which is subject to subsequent change is incorporated by reference according to the specific reference and to the identification statement. Adoption of any subsequent change in incorporated matter is made under Part 11 of this chapter and 1 CFR Part 51.

(c) *Identification statement.* The complete title or description which identifies each published matter incor-

porated by reference in this part is as follows:

(1) *International Electrotechnical Commission (IEC) Publications.* (i) IEC Publication No. 179, entitled "Precision Sound Level Meters," dated 1973.

(ii) IEC Publication No. 225, entitled "Octave, Half-Octave, Third Octave Band Filters Intended for the Analysis of Sounds and Vibrations," dated 1966.

(iii) IEC Publication No. 651, entitled "Sound Level Meters," first edition, dated 1979.

(iv) IEC Publication No. 561, entitled "Electro-acoustical Measuring Equipment for Aircraft Noise Certification," first edition, dated 1976.

(v) IEC Publication No. 804, entitled "Integrating-averaging Sound Level Meters," first edition, dated 1985.

(vi) IEC Publication 61094-3, entitled "Measurement Microphones—Part 3: Primary Method for Free-Field Calibration of Laboratory Standard Microphones by the Reciprocity Technique", edition 1.0, dated 1995.

(vii) IEC Publication 61094-4, entitled "Measurement Microphones—Part 4: Specifications for Working Standard Microphones", edition 1.0, dated 1995.

(viii) IEC Publication 61260, entitled "Electroacoustics-Octave-Band and Fractional-Octave-Band filters", edition 1.0, dated 1995.

(ix) IEC Publication 61265, entitled "Instruments for Measurement of Aircraft Noise-Performance Requirements for Systems to Measure One-Third-Octave-Band Sound pressure Levels in Noise Certification of Transport-Catagory Aeroplanes," edition 1.0, dated 1995.

(x) IEC Publication 60942, entitled "Electroacoustics—Sound Calibrators," edition 2.0, dated 1997.

(2) *Society of Automotive Engineers (SAE) Publications.* (i) SAE ARP 866A, entitled "Standard Values at Atmospheric Absorption as a Function of Temperature and Humidity for Use in Evaluating Aircraft Flyover Noise," dated March 15, 1975.

(3) International Standards and Recommended Practices entitled "Environmental Protection, Annex 16 to the Convention on International Civil Aviation, Volume I, Aircraft Noise", Third Edition, July 1993, Amendment 7, effective March 21, 2002.